

AMENDMENTS TO THE CLAIMS: This listing of claims replaces all prior versions and listings of claims in the instant patent application.

Listing of claims:

1. (currently amended) A method of detecting Graves' disease in a patient comprising

(a) obtaining an orbital or skin sample comprising fibroblasts from the patient, and

(b) detecting in said an orbital or skin sample the activation of fibroblasts by binding of disease specific IgG to the IGF-1 receptor (IGF-1R) relative to a control wherein an increased presence of IgG-activated fibroblasts compared to the control indicates Graves' disease, and wherein fibroblast activation is determined by measuring the level of ~~a chemical marker~~ IL-16 expressed by said IgG-activated fibroblasts, RANTES expressed by said IgG-activated fibroblasts or by measuring T cell migration towards said fibroblasts in said orbital or skin sample.
2. (cancelled)
3. (previously presented) The method of claim 1, wherein an elevated level of the marker compared to the control indicates presence of said IgG-activated fibroblasts.
- 4.-5. (cancelled)
6. (previously presented) The method of claim 1 wherein the detecting is accomplished by exposing T-cells to said orbital or skin sample comprising said fibroblasts and measuring T-cell migration toward said fibroblasts, wherein an increase in the migration of said fibroblasts relative to the control indicates presence of said IgG-activated fibroblasts.
7. (previously presented) The method of claim 1 wherein the patient is human.
8. (cancelled)
9. (previously presented) A method of detecting the presence of antibody-activated fibroblasts, said method comprising
(a) obtaining an orbital or skin sample comprising fibroblasts from the patient;
(b) contacting said sample with an antibody specific for IL-16

(c) detecting the level of IL-16 released by said fibroblasts relative to a control, wherein an elevated level of IL-16 detects the presence of antibody-activated fibroblasts.

10. (previously presented) A method of detecting the presence of antibody-activated fibroblasts, said method comprising

- (a) obtaining an orbital or skin sample comprising fibroblasts from the patient;
- (b) contacting said sample with an antibody specific for RANTES;
- (c) detecting the level of RANTES released by said fibroblasts relative to a control, wherein an elevated level of RANTES detects the presence of antibody-activated fibroblasts.

11. (previously presented) A method of detecting the presence of antibody-activated fibroblasts, said method comprising

- (a) obtaining an orbital or skin sample comprising fibroblasts from the patient;
- (b) contacting said sample with antibodies specific for IL-16 and RANTES;
- (c) detecting the levels of IL-16 and RANTES released by said fibroblasts relative to a control, wherein an elevated level of both IL-16 and RANTES detects the presence of antibody-activated fibroblasts.